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THE CRISIS OF 1914 IN THE UNITED STATES

The world-wide crisis which came with the approach and outbreak of the European war presents widely different aspects even when its course in the various countries outside Europe at a distance from hostile operations is alone considered. Industry, commerce, and finance everywhere immediately felt the effects of the war influence but with varying degrees of severity and in diverse ways reflecting wide differences in the economic activities and financial position of different countries and parts of the world. At the outset, therefore, it should be clearly understood that this narrative of the course of events in the United States furnishes no indication, even of a most general sort, of the effects of the war elsewhere.

The crisis in the United States, unlike that in some other countries, Brazil and Canada, for example, was solely due to the war. It was not complicated and made more severe by the presence of unsound conditions developed during preceding years of general business and speculative activity—conditions which in some countries had already occasioned or made imminent the outbreak of a crisis. For more than a year before the war a moderate trade reaction in this country had checked new undertakings as well as purely speculative activities. As further and convincing evidence of the essential soundness of business conditions it is to be noted that although there was a large increase in the number of failures, the presence of widespread and deep-seated weakness was disclosed in strikingly few instances under the strain to which the country was subjected.

This condition of somewhat less than normal trade activity was reflected in the financial position of the New York money market during the first three weeks of July, 1914. Rates for loans of all maturities were at a moderate level and were tending to decline further. The weekly statement (computed on the average basis) of the total loans and investments of all the banks and trust companies of the city, as is customary after the half yearly settlements, exhibited the same downward tendency. Between July 3 and July 25 loans and investments were reduced from $2,695,000,000 to $2,631,000,000 and cash holdings which were at the lowest point at

$507,000,000 on July 10 had increased to $519,000,000. The surplus cash reserves of the clearing house banks, while not large, were of normal proportions, on July 25 amounting to $26,000,000, not quite so great as at the corresponding date for the preceding year but somewhat greater than in 1912.[1] The customary midsummer tendencies were also to be observed in the course of foreign exchange rates. Owing to a pronounced decline in merchandise exports relative to imports and to sales of securities on foreign account, a factor intermittently present since the beginning of the Balkan Wars, there had been unusually heavy exports of gold during May and the first three weeks of June. Between June 23 and July 18, however, demand sterling, the most significant single exchange rate, had declined from $4.8820, a level at which gold could be profitably exported, to $4.8690. This decline, it is important to note, was not primarily due to a greater supply of exchange arising out of increased merchandise exports, but rather to exchange operations which involved borrowing in Europe in anticipation of the customary excess of exports during the autumn months. Grain bills were indeed already being offered in connection with the marketing of winter wheat, but as an excess of imports of $6,000,000 was shown by the July foreign trade returns it is evident that the reversed exchange tendency could not have been due to an increase in the supply of commercial bills.

A large excess of exports in the near future was, however, reasonably certain, assuming the continuance of normal conditions. The winter wheat crop was of record-breaking proportions and the promise of the cotton crop was almost equally satisfactory. For both these products an extensive European demand was assured. In these circumstances so long as demand exchange was well above par the drawing of bankers' time bills, commonly known as finance bills, was by far the most attractive method of borrowing money in the New York market. There was a fair possibility that money

[1] A rather confusing variety of data is published each week by New York banks. Figures computed on the average basis are available for all the banks and trust companies of the city and on both the average and actual basis for the banks and trust companies which are members of the New York Clearing House. For many purposes the figures for the clearing house banks alone are to be preferred. They are available for a long series of years, while no trust companies were members until 1911. Moreover, owing to the practice on the part of both member and non-member trust companies of depositing surplus cash with the clearing house banks, it is these institutions that accumulate surplus cash reserves and it is from them that cash is withdrawn.

secured in this way would cost the borrower little or nothing. Early in July the quotation for bankers' 60-day bills ranged between $4.8575 and $4.86. If by September exchange should go to the import point, remittances to cover these bills at maturity could be secured at a rate low enough to take care of all of the charges incurred.

There is no means of determining the amount of bankers' long bills which were drawn during the first three weeks of July, but it is certain that they were the means of providing a considerable part of the supply of demand exchange which caused the downward tendency in rates. Those in New York who purchased the bankers' bills sold demand exchange against the discounted proceeds in the foreign markets on which the bills were drawn, chiefly London. No other course would have been reasonable because of the practical certainty of a further decline in rates with the approach of autumn. To hold the bills for investment or to build up foreign balances from the discounted proceeds of the bills would have involved an inevitable loss provided events should take the usual course during the remainder of the year.

On Saturday, July 18, when demand exchange had declined 130 points to 4.8690, it is certain that New York then possessed no considerable foreign balances against which exchange might be sold. Had normal midsummer conditions continued, regular remittance requirements during the following six weeks or more would doubtless have absorbed not only all the exchange created by merchandise exports but also a further amount made available through the drawing of additional finance bills. In other words, the New York market was in its usual midsummer position of indebtedness in the international short-time loan market. It possessed nothing with which to offset any sudden and unexpected foreign demands which might be made upon it. Although there was every reason to look for a further decline in exchange, anything that might increase the demand for exchange or prevent the drawing of finance bills was pretty certain to bring rates quickly back to the gold export point once more. But again it should be repeated, the New York money market was in this respect merely in what has always been its position relative to foreign markets in the early summer and, indeed, at all times in the year except during seasons of heavy grain and cotton exports.

On Monday, July 20, three days before the fateful Austrian note to Servia, discount rates advanced slightly in the continental

money markets. But as the advance was particularly noticeable in Paris it was attributed, and apparently rightly, to local causes of various kinds both political and financial. London exchange moved in favor of Paris, which took a part of the weekly offering of gold from South Africa. Although on Monday the advance in interest rates was slight, hardly more than 1/8 of 1 per cent in any market, demand sterling in New York advanced 30 points to 4.8720. Some further easing of money rates in New York was in part responsible for this advance. The extent of the advance from these two influences is, however, significant. It shows clearly that the decline in exchange rates during preceding weeks was the result of the discounting of the expected future course of the market by means of exchange operations and was not due to the creation of large balances resulting from trade and other dealings having their origin outside the exchange market.

Each day following Monday, July 20, witnessed a further advance in exchange until on Thursday, July 23, with demand sterling at 4.8820, $2,500,000 in gold bars was engaged for export to Paris. Rates declined slightly on Friday, but closed at the highest for the week on Saturday at 4.8830, when gold amounting to $3,600,000 was engaged for export on the following Tuesday.

Up to this time nothing abnormal had developed in the working of the machinery of the foreign exchanges. Discount rates in European markets had been advanced but only to a slight extent, surprisingly little when judged in the light of future events. In London, for example, the discount rate on 60-day bills which on Monday was 2 3/16 per cent was on Friday 2½ per cent. Bankers' time bills continued to be drawn freely, at least during the first half of the week, since the effect of the higher discount rates was more than offset by the advance in the rates of exchange. A normal supply of exchange seems to have been available during the week, but the demand for exchange had notably increased. In part this was due to the unexpected advance in exchange rates. When the tendency of rates is downward and is expected to continue in that direction a speculative short interest develops and many having remittances to make defer arrangements to the last moment. Covering of short commitments was therefore a factor tending to a further advance in rates just as soon as the initial advance was seen to be something more than a momentary fluctuation in rates.

By Thursday, the day of the presentation of the Austrian note to Servia, it seems to have become generally recognized that the

political situation in Europe was severely strained, but it was not apparently believed to be more alarming than on many other occasions in the past when matters were finally smoothed over. Sales of securities on the New York Stock Exchange on foreign account were being made and in increasing quantities day by day, but such sales had been taking place more or less intermittently since the outbreak of the Balkan Wars and therefore occasioned no serious concern. The volume of these sales to the close of the week was not great relative to the absorbing power of the New York security market, but was still sufficient in conjunction with the generally unfavorable influence on the market of the situation in Europe to bring about a moderate decline in the more active international stocks. In the foreign exchange market these sales were a more potent factor. The demand for sight exchange was increased by the amount of the sales at a time when, as we have seen, in the absence of bankers' bills, some gold would almost certainly have been exported merely to meet ordinary remittance requirements.

On Saturday, July 25, foreign exchange operations were still being conducted in normal fashion with demand exchange definitely at the gold export level closing at 4.8830. Gold exports on a considerable scale seemed likely, but nothing more serious seems to have been anticipated from what was known of the European situation. Over Sunday the outbreak of a general European war, which had been commonly regarded as a rather vague possibility, became alarmingly probable. On Monday demand exchange opened at 4.92 and the foreign exchange market was completely disorganized. This condition was in no way peculiar to New York. Foreign exchange dealings between all the money markets of the world were in a similar abnormal state. In no other business was the effect of the approach of the war felt so immediately, generally and severely. The complicated and delicately balanced mechanism of the foreign exchanges, developed during long years of peaceful intercourse, collapsed like a house of cards. It was not designed for the contingency of a general war and went to pieces the moment the outbreak became at all probable.

Two operations essential for the working of the foreign exchanges were interrupted and, indeed, practically discontinued on Monday—the business of accepting and that of discounting foreign bills of exchange in London. When London ceased to perform these two functions, the mechanism of the foreign exchanges

throughout the world inevitably and at once became completely disorganized.

In order to understand the situation it is necessary at this point to interrupt the narrative of the crisis with a digression into some of the intricacies of foreign exchange operations. A large part of the foreign trade of the world and an even greater part of short-time international borrowing is handled by means of bills of exchange drawn for acceptance upon London banks and especially upon London accepting houses. Acceptors in London are constantly under heavy obligations on bills of exchange drawn by banks and merchants throughout the world who in turn are under obligation to remit funds to them before the bills mature. Among these bills accepted in the ordinary course of business were a large number amounting in the aggregate doubtless to many millions of pounds accepted for banks and merchants in the countries which were rapidly drifting towards war. If England engaged in the war, remittance would not be made on bills accepted for parties in hostile countries until after the restoration of peace. It was probable also that remittances would be at least delayed in many instances in the case of bills accepted for people in allied and also in neutral countries owing to the disturbance which the outbreak of the war would involve.

In these circumstances acceptors in London were in no position to make new acceptances and the value of the acceptance itself was impaired. It should further be noted that exchange banks in New York and in all other markets were under heavy contingent liabilities on account of endorsements of bills drawn on London acceptors. In the event of the failure of London accepting houses these bankers would have to supply funds to take up the bills and in the disturbed conditions prevailing might incur serious loss through the failure of drawers to whom of course they would have recourse. Uncertainty regarding the value of the London acceptance completely transformed the character of the business of buying commercial bills of exchange. A business which normally is highly secure and even routine in character was in a moment changed to one surrounded with uncertainties of a most unfamiliar and incalculable nature. At the same time shipping hazards and uncertainty as to market conditions in foreign countries were taking away much of the value of the security which the bill of lading ordinarily gives in the case of bills drawn against exports. Both exporters and those who might purchase their bills would there-

fore be embarking upon venturesome transactions utterly lacking the highly developed safeguards which normally protect international trade in commodities.

The consequences of the uncertain position in which London acceptors were placed by the approach of the war do not seem to have been at once fully realized even in foreign exchange circles. They were perhaps overshadowed by the presence of another disorganizing influence, the full force of which was immediate and obvious. From Monday, July 27, to the middle of August the business of discounting foreign bills in London was almost entirely suspended. London became the central money market of the world, reaping all the advantages of that position because it has always been able to absorb whatever amount of foreign bills might be sent thither for discount. This is an essential condition for the normal working of the exchanges under the existing system of settlements largely concentrated in a single market which in turn requires that bills of exchange shall be drawn on that market. The market on which bills of exchange are drawn must be prepared to discount them. Exchange bankers purchasing bills drawn on another country must be able to discount them at once in that country so that they may be in position to sell demand exchange against the proceeds. The price of long bills is always the demand rate less commission, stamp taxes, and the discount rate in the country on which the bills are drawn. If unable to discount the bills, the purchaser would be obliged to assume the risk of loss from a different demand rate of exchange at maturity. Suppose, for example, that 60-day commercial bills are purchased at 4.83 and that the demand rate is 4.86½. The difference in the rates would cover the current discount rate in London, the English stamp tax, foreign correspondent's commission, and the dealer's profit. This profit he will secure by discounting the bill and selling demand exchange at once. If he should hold the bill to maturity his return would depend upon the demand rate of exchange at that time. If the demand rate has not changed in the meantime he secures, in addition to his initial profit, interest at the London rate of discount. If the demand rate drops his return is reduced while if it has advanced he makes an additional profit. Accordingly, when it is believed that exchange rates will advance bills may be held but when a decline is expected or when the future course of exchange is very uncertain the holding of bills drawn on another country is obviously inexpedient.

It is evident, therefore, that if time bills of exchange are to be handled with a minimum of risk, it must always be possible to discount them in the country on which they are drawn. This has always been possible in London and at rates which have averaged somewhat below those prevailing in other money markets. For this reason and because it facilitates settlements and makes possible a broad exchange market in all countries, foreign bills of exchange throughout the world have for many years been drawn principally on London.

Exchange bankers in New York, and in all other exchange markets, each day and oftener if rates change, receive spot and forward delivery discount quotations from London correspondents. Spot quotations, as the name implies, are discount rates on bills already in London. Forward delivery quotations are the rates at which London banks and discount houses agree to take bills arriving in the next mail leaving the market to which they are quoted. These forward delivery rates enable the New York exchange broker to purchase time bills without assuming any risk from changes in London discount rates during the week or more that the bills are in transit. When a downward tendency in London discount rates seems probable the banker may not take advantage of the delivery rate, just as in the belief that exchange rates are to advance he may decide to hold bills to maturity. In fact, the advantages and uses of forward delivery quotations are in every way analogous to those arising from discounting bills, which have already been described. In the one case the arrangement covers the transit period, in the other the entire life of the bill after it reaches the country on which it is drawn.

With the approach of the war it might well have been presumed that London would decline to quote forward delivery rates before the discounting of bills already in London was discontinued. As it happened, both spot and forward delivery quotations were discontinued at the same time, on Monday, July 27, striking evidence of the great change for the worse which affairs had taken over Sunday.[2]

This discontinuance of quotations by London was the most important single factor in the exchange market in New York and elsewhere throughout the world on Monday, July 27. It involved

[2] Spot quotations at the close of the previous week were 2½ per cent for 60-day bills and 2 11/16 per cent for 90-day bills. Forward delivery rates were 2 11/16 per cent and 2 13/16 per cent for the same maturities.

a complete transformation not only of the business of buying commercial bills but also of conditions in the demand exchange market as well. On Saturday the exchange banker purchasing commercial bills could arrange discount terms at once in London and sell demand exchange against the proceeds. On Monday the purchase of such bills involved the investment of capital until the date of maturity in a far from satisfactory security owing to the position of London acceptors. On Saturday every commercial bill offered in the market provided the means for an immediate sale of demand exchange. On Monday the immediate supply of demand exchange could no longer be enlarged to the slightest extent by this means. The principal source of an immediate supply of a demand exchange was entirely cut off. Demand exchange could still be sold against foreign balances, but these, as we have seen, were not large. The exportation of gold was a further source of supply of demand exchange, but could not go on indefinitely without endangering the foundation of the domestic credit structure.

In these circumstances, although exchange transactions were not entirely suspended, there was a complete cessation of certain exchange operations, in the absence of which there can be no broad exchange market. Each dealer made every effort to provide the exchange urgently needed by regular customers but transactions between dealers were almost altogether discontinued. Ordinarily there are constant dealings in exchange between bankers. Each exchange banker is prepared to buy and sell both demand and time exchange in large amounts if the terms offered seem attractive. These dealings steady the market and enable each banker to adjust his position to changing conditions and to his purchases of commercial bills. Short sales of exchange are also essential, serving, when made within reasonable limits, to steady the market and to provide a more elastic supply of exchange. But with the approach of the war short sales were extra-hazardous and the few bankers who were fortunate enough to possess large foreign balances were naturally husbanding them to take care of their own future requirements and those of their regular customers. In normal times by offering to buy exchange at higher prices a dealer can secure whatever amount he may require. At such times changes in rates serve to adjust supply and demand in the exchange market. Beginning with Monday, July 27, rates merely reflected the urgent and even frantic efforts of particular purchasers to secure ex-

change. Rates fluctuated wildly, but as each transaction stood by itself they had no general market significance.

The supply of exchange could be increased only by means of gold exports, and, accordingly, gold was engaged for shipment in enormous quantities. On Monday $7,000,000 and on Tuesday $12,000,000 were taken for export, all that underwriters were willing to insure even at the high rates which were being exacted to cover war risks. These large gold shipments seem to have had at least the negative effect of preventing a further rise in rates on Monday and Tuesday. This means of providing demand exchange continued available until the beginning of the following week, but upon the declaration of war between England and Germany sailings were generally cancelled and insurance could not be obtained. Up to that time it is possible that these gold exports would have provided adequate exchange for urgent requirements but for the abnormally large demand for exchange created by the overwhelmingly large sales of securities by foreign holders on the New York Stock Exchange on Tuesday, July 28, and on the two following days.

These sales were by far the most striking consequence in the United States of the approach of the war. It is not, however, even yet generally realized that this was an effect of the war which was almost entirely absent in other non-European countries. With few exceptions the enterprises and government loans in non-European countries other than the United States, in which European capital has been invested, have been entirely financed by European investors. There is, consequently, no broad and organized market and generally no market at all for the securities of such enterprises in the countries in which the capital is actually invested. In the case of the United States, on the other hand, American investors have generally provided by far the greater part of the capital for those enterprises in which foreign capital has been placed. Furthermore, there is a broad and organized market on the stock exchanges of New York and other cities for the securities of all such enterprises of any great importance. When, therefore, at the approach of the war European security holders frantically endeavored to convert investments into cash, selling pressure was soon almost entirely concentrated upon American stocks and bonds. Other securities could only be sold to European purchasers, and such sales soon became impossible on account of the closing in quick succession during the first part of the week of the various

European exchanges.[3] It may further be added that these sales between Europeans could have no direct effect upon the countries in which the capital was actually invested. The volume and urgency of the foreign selling of American securities on the New York Stock Exchange was accordingly far greater than it would have been if other non-European securities, owned in Europe, had been equally marketable.

Sales of securities by foreign holders on the New York Stock Exchange began with the first intimation of trouble between Austria and Servia, increasing in volume day by day. But even on Monday, July 27, they had not reached alarming proportions. Apparently, European security holders were unable on that day to complete the necessary arrangements for sales in New York. On the following day an extraordinary mass of selling orders was executed on the exchange. The volume of sales of shares as compared with Monday increased from 474,749 having a par value of $41,552,000 to 1,019,975 with a par value of $90,257,000. What proportion of these sales was on foreign account can not be determined. Uncertainty regarding the effect of the war on security values doubtless led to sales by American owners of securities, and there was also much short selling.

Notwithstanding a sharp decline in quotations on Tuesday, it seems to have been generally believed in New York that the absorbing power of the American market would be sufficient to take all the securities which European holders might desire to sell. This opinion was strengthened on Wednesday when, in spite of further foreign sales, quotations generally recovered slightly from the low level of Tuesday. It was, however, but a momentary respite due chiefly to the covering of the short sales of the preceding days. Owing to the inability of European investors to dispose of other securities, falling quotations for American securities could have little or no effect in checking sales. Thursday was marked by still more intense selling pressure than on Tuesday, accompanied by a further decline in security prices though it was not so extreme in the case of particular securities as on Tuesday. The decline was, however, more general, extending throughout the entire list of securities, including many ordinarily inactive issues of bonds.

[3] On Monday the bourses of Vienna, Budapest, and Brussels, and on Tuesday the stock exchanges of Montreal and Toronto were closed, and business was suspended on the Paris Bourse. On Wednesday all the other bourses of Europe were either closed or had limited transactions to cash business.

It should be observed at this point that the disturbing effect of these sales was almost wholly due to the fact that they were sales by foreign holders rather than to the quantities offered for sale. Transfers of securities far greater in magnitude between domestic buyers and sellers have frequently taken place even when the tendency of prices has been downward without causing serious difficulties. Uncertainty as to the effect of the war on security values tended to reduce the investment demand to a minimum. But, after all, it is the speculative buyer who must be relied upon to purchase securities in large volume at a moment's notice in periods of stress. It is at least possible that the speculative demand might have proved adequate to absorb all the securities which foreign holders might have desired to sell if the effects of such sales had been in no way different from the sale of securities by domestic owners. Transfers of securities or other property from investors to speculative holders can take place upon a large scale only when the latter are able to borrow from banks a considerable part of the purchase price. When such transfers are between domestic buyers and sellers, although loans and deposits increase, it is unlikely that the banks will experience any appreciable change in their cash holdings. Analogous conditions are present when securities are sold on foreign account if the country in which the sales are made is in a creditor position in the short-time international loan market or is able to borrow in the market from which the securities are sold. Funds from these sources were, of course, unavailable for meeting the obligations immediately payable which were being created by the sale of securities by foreign holders on the New York Stock Exchange during the week before the outbreak of the war. The United States was a debtor in the international short-time loan market, and the conditions which were leading to the foreign sales of securities were an insuperable obstacle to the granting of new loans.

From the analysis of the foreign exchange situation in preceding pages the conclusion was reached that in all probability gold would have been exported from New York during the latter part of July and throughout August, even if there had been no foreign sales of securities on the New York Stock Exchange. All these sales, therefore, it may be concluded, involved obligations for immediate payment which could be met only by gold shipments. They were equivalent in effect to a general run upon banks by depositors and were at the same time of an even more serious nature because

they could not be checked by the approved method in the case of runs of continued payments, since they were not due to loss of confidence either in American banks or in American securities.

No banking system in a debtor country could be devised which would be able to endure the double strain which was imposed upon the banks of the United States by the wholesale dumping of securities by foreign investors on the New York market. To supply gold to the full amount of the purchase price and at the same time to grant loans to enable purchasers to carry the securities was soon seen to be a manifest impossibility. Banking necessities even more than those of brokers and their customers required the adoption of some means of preventing the further liquidation of securities by foreign holders.

Both bankers and brokers deferred action to the last possible moment. Even as late as Thursday the hope was still cherished that war might be avoided. The extent and urgency of foreign liquidation of securities seems to have been generally under-estimated, partly, it may be presumed, because the inability to dispose of other non-European securities was not clearly perceived. A laudable desire to secure for the American market the prestige that continued dealings in securities would confer was also a potent influence favoring delay. At a conference on Thursday afternoon it was decided to take no action. Overnight an enormous volume of selling orders, in many cases without limitations as to price, was received from Europe. After hurried consultation between representatives of the stock exchange and of the clearing house banks it was decided, only a few moments before the hour of opening, to close the stock exchange for an indefinite period. Similar action was immediately taken by all other stock exchanges of any importance throughout the country and by dealers in unlisted securities as well. These drastic measures were, of course, immediately effective in preventing further sales of securities not only on foreign account but also between buyers and sellers within the country. Possibly dealings might have been continued under the system of minimum prices inaugurated when the exchange was reopened in December, but that was a method of conducting the business of buying and selling securities yet to be devised. In a future emergency it may well prove effective, but in the absence of experience of its possibilities it might not then have proved adequate for the purpose.

That the closing of the stock exchange was a necessary measure

has never been questioned. Indeed, without implying the slightest criticism of those responsible for the conduct of affairs, the opinion has been expressed that suspension two or three days earlier would have been of great advantage to the country. Everything in that eventful week was entirely without precedent. Conditions changed rapidly from day to day, even from hour to hour. It was at least possible that a peaceful solution of the difficulties between the European powers would be found. It was reasonable, therefore, to continue business as usual until it was clear that drastic measures were absolutely unavoidable.[4]

An earlier closing of the stock exchange would have been of much advantage in the foreign exchange market. Demoralization would have been somewhat less complete and, what is far more important, normal conditions might presumably have been restored at a much earlier date but for the indebtedness created by the sales of securities on foreign account. The discontinuance of the usual London exchange facilities for handling long bills necessarily dislocated the market, but gold exports might have proved adequate to provide the exchange to meet at least the more urgent obligations arising out of ordinary business transactions with foreign countries. In addition to the $19,000,000 of gold exported on Monday and Tuesday, an additional $17,000,000 was engaged during the remainder of the week. These exports served principally to provide the means for meeting foreign requirements of the bankers who shipped the gold. In the meantime extraordinary prices were being offered for exchange, as much as $5.50 for demand exchange and $6.35 and even more for cable transfers. Such quotations refer to particular transactions. These were not rates at which exchange could certainly be secured. They are chiefly significant as evidence of the complete demoralization of the exchange market. They were in no way due to ruthless exactions on the part of those who sold exchange, since all dealers needed exchange to cover their own obligations already due or maturing in the immediate future.

[4] If the exchange had closed on an earlier date the final quotations would have been on a higher level. During the period of suspension unauthorized selling would have been more active while the volume of sales under the supervision of the Stock Exchange Committee would have been much reduced. The opening of the exchange would probably also have been deferred if closing quotations had not generally discounted the immediate effects of the war on security values. See below, p. 531 and also H. G. S. Noble, *The New York Stock Exchange in the Crisis of 1914.*

The available amount of exchange was hopelessly inadequate to supply the demand, but even if, in the absence of security sales, the supply created by gold exports had proved sufficient during the week ending August 1, it would have been entirely inadequate during the two succeeding weeks. After the declaration of war between England and Germany transatlantic sailings were practically discontinued until it was clear that England's sea power was able to provide a reasonable measure of security to ocean transportation. Nothing could be done to restore normal exchange conditions during this fortnight while shipping connections between Europe and the United States were interrupted. During this period new influences were at work in the exchange market arising out of the effects of the war upon American foreign trade and on American banking operations. It is necessary, therefore, at this point to postpone further consideration of the course of events in the foreign exchange market and direct attention to the effects of the war within the United States.

If the stock exchange had not closed on Friday, July 31, it is certain that the decline in the price of securities during the day would have been so extreme as to have occasioned numerous failures among brokers and their customers and presumably much loss to the banks as well. The sharp decline during preceding days had fortunately been accompanied by no important failures and, it may be added, had not gone much beyond a reasonable discounting of the probable effects of the war on the value of securities. To brokers the long period of enforced inactivity which followed was burdensome, but it did not subject them to the severe and urgent pressure of crisis conditions. To the banks the suspension of dealings in securities was fraught with far more serious and immediate consequences. A considerable portion, especially large in the case of the New York banks, of the assets of all of the banks of the country was impounded for an indefinite period. It was impossible to liquidate not only investments in securities but also both time and demand collateral loans.

The effects upon the banks of thus locking up a large part of their assets were far reaching though they proved less serious than was at first anticipated. Public confidence in the solvency of the banks does not appear to have been materially weakened. Moreover, taking the banks as a whole, it is clear that the funds available for other purposes were not very different in amount from what they would have been if dealings in securities had continued.

Even if the exchange had remained open, it is altogether unlikely that the banks would have found it possible during the weeks immediately following the outbreak of the crisis, to reduce appreciably either investments in securities or collateral loans. Past experience proves conclusively that during a crisis it is most inexpedient to attempt and practically impossible to bring about any appreciable reduction, either in investments or loans, of any kind. Much shifting of loans between the banks but little or no positive contraction even when it has been seriously attempted, has marked the course of all crises of the first magnitude.

The suspension of dealings in securities was a serious matter for the banks, primarily because in large measure it deprived them of the power to shift loans among themselves by means of ordinary banking operations. When a bank finds that its reserve is being depleted or that regular customers require additional accommodation, it can ordinarily readily adjust itself to the situation by calling demand loans or by making no new time collateral or commercial loans in the open market. After the closing of the stock exchange, commercial paper purchased from note brokers became the only class of loans which could be reduced without bringing pressure to bear upon regular customers. Obviously, the payment of collateral loans could not be insisted upon when there was no market in which either borrowers or bankers could sell securities. The shifting of loans was also equally difficult because for the same reason all banks were disinclined to make additional collateral loans. Many borrowers furnished additional security and in particular instances loans were reduced or fully paid. But the banks could not insist upon such action. In short, the particular class of loans, upon the liquidation or shifting of which our banks have mainly relied as a means of securing additional free assets, had become a wholly unavailable resource.

In all crises since 1860 the banks of New York and other cities had resorted to the device of the clearing house loan certificate, generally confining its use to settlements between the members of each particular clearing house. The primary purpose of this device had always been to relieve the banks from the necessity of attempting to contract loans upon a wholesale scale with all the disastrous consequences which that course always involves. In 1914 the sequence of cause and effect was reversed. On account of the closing of the stock exchange the banks could not even attempt to liquidate collateral loans, and, consequently, were obliged to

resort to the clearing house loan certificate or some other special means of making settlements among themselves.

The necessity for emergency measures on the part of the banks was by no means wholly due to the suspension of dealings in securities. At the close of the week ending August 1 it was apparent that the country was entering upon a period of severe crisis. With few exceptions, notably wheat and the other cereals, all industries the products of which are regularly exported in considerable quantities seemed certain to be seriously affected by the war. The cotton trade at once became completely demoralized. During the week there was a decline in cotton futures of somewhat more than $10 a bale, about one third of the decline which was to come in the course of the next few months. On Friday, July 31, three cotton brokerage houses failed; and shortly after 11 o'clock the cotton exchange was closed, not, as was at first announced, until the following Tuesday, but, as it proved, for an indefinite period. Other cotton exchanges were obliged to take the same unprecedented step, thus involving the entire discontinuance of customary methods of determining prices and of marketing cotton. Disaster to no other single industry of the country could have such serious and far-reaching consequences. Owing to the almost exclusive dependence on cotton of a large part of the southern states, widespread bankruptcy of merchants and bankers, as well as of growers, became a threatening possibility. No other industries were so seriously affected directly by the outbreak of the war and no considerable section of the country was mainly dependent upon any of them.

In addition to its direct influence upon exporting industries it was at once apparent that the war would prove a most unfavorable factor in all industries requiring large investments of capital. The further development of railroads, local utilities, and, indeed, construction work of all kinds, was bound to be greatly retarded with a consequent slackening in the demand for many kinds of material and equipment.

The various causes of trouble which have been mentioned—the suspension of dealings in commodities, the disorganization of the foreign exchanges, the curtailment of exports and of the supply of capital—were unlike the causes of all crises with which the country had hitherto had experience. But however diverse the more specific causes of crises may be, the financial or purely banking consequences and requirements during the early stages of all crises are

strikingly similar. Uncertainty regarding the future spreads rapidly throughout the business world. Extreme caution, perhaps better characterized as timidity, paralyzes not only enterprise but normal business activities as well. Consumption is curtailed within the narrowest possible limits, while producers at every stage contract operations and all too frequently fail to make payments with accustomed promptness. At the beginning of a crisis there is, therefore, always a widespread need for additional loans from the banks. Loan expansion at such times does much to restore confidence in the future, reduces forced liquidation to a minimum and enables producers and dealers to carry goods until they can be absorbed under the new conditions of slackened consumption and restricted production. In the particular instance of the crisis of 1914 there was much ground for thinking that a liberal loan policy on the part of the banks would prove unusually effective in meeting the situation. The benumbing effects of the outbreak of the war were certain to pass off in the course of time. Most of the industries of the country are not much concerned with export business, and domestic savings have for a number of years furnished very nearly all the capital requirements of the country. Moreover, the war, if long continued, was certain to create a demand for many products which are not regularly exported at all or, at all events, in large quantities. Adjustment to the new conditions was to be expected far more speedily than in the case of a crisis primarily due to domestic causes. For these reasons, while the immediate requirements for additional banking accommodation were not less than in former crises, a liberal loan policy promised to be exceptionally effective in meeting the needs of the situation.

The ability of the banks to render assistance by means of additional loans would have been exceedingly small in the absence of emergency measures. The unused lending power of the banks of the country is never large except during periods of depression immediately following crises and it had been much reduced by the heavy gold exports during May and June and the latter part of July. On June 30, the date of the last return of condition to the Comptroller of Currency, the surplus cash reserves of the national banks were at an unusually low level for that season of the year. The banks of central reserve and reserve cities holding $701,000,000 in cash were $10,000,000 below legal requirements, while the country banks, holding $268,000,000, were only $46,000,000 above requirements. Doubtless there was some liquidation of loans with conse-

quent reduction in deposit liability after the turn of the half year, but such increase in available lending power was presumably much more than offset by the loss in gold taken for export at the end of July. Any considerable increase in loans, to say nothing of withdrawals of currency, would certainly have brought the banks generally below reserve requirements, a condition which in past crises had always led to general efforts at loan contraction, the husbanding of reserves carried to the point of restrictions on cash payments and the consequent breakdown of the check machinery of the country.

At the time of the closing of the stock exchange, indications were not lacking that the same influences were at work which in past crises had occasioned the dislocation of the banking machinery of the country. During the week ending July 31, the loss of $56,000,000 in the cash reserve of the New York clearing house banks and trust companies, was some $20,000,000 in excess of the withdrawals of gold for export during the week. Although at this season of the year the normal movement of money is from the interior to New York, it is evident that anxiety over the situation was having its customary effect in precipitating withdrawals of balances by banks in other parts of the country and Canada.

As in 1907 the issue of clearing house loan certificates alone would surely have been followed immediately by the partial suspension of cash payments not only on the part of the banks of New York City, but by those of the entire country. The loan certificate simply enables banks to defer cash settlements with banks in the same clearing house. It does not provide them with means of meeting obligations due elsewhere. Indeed, the use of the loan certificate is altogether likely to make it necessary for banks to restrict payments since a bank weak in reserve does not secure additional cash even if it has a succession of favorable clearing balances.

The clearing house loan certificate served a useful purpose in this crisis, but fortunately the banks were not obliged to rely solely upon that imperfect device. For the first time since the establishment of the national banking system the banks exercising the powers conferred upon them by the Aldrich-Vreeland act of 1908 were able to issue bank notes freely in coping with a crisis. This act was to have expired by limitation on July 1, 1914. Although there had been no occasion for making use of its provisions and none seemed likely to present itself in the immediate future, the

act was luckily extended for another year by the Federal Reserve Act of 1913. At the same time the tax on notes issued under the provisions of the act was reduced from a minimum of 5 per cent to 3 per cent during the first three months of issue, thereafter increasing by ½ per cent a month to a maximum of 6 per cent contrasting with increases of 1 per cent a month to a maximum of 10 per cent according to the original act. The availability of the notes was still further increased by an act which passed through both branches of Congress on August 3, repealing the requirement that no bank might take advantage of the act unless it was already issuing bond-secured notes to the amount of 40 per cent of its capital. At the same time the limit on the total issue of $500,000,000 was repealed and the amount of notes which particular banks might issue was increased from 100 per cent to 125 per cent of capital and surplus.

The somewhat complicated provisions of the Aldrich-Vreeland act proved no obstacle to rapid and effective action. Little use was made of the provision for taking out emergency notes by individual banks against bonds other than United States government bonds, deposited in the United States Treasury as security.

Early in August the Secretary of the Treasury approved applications of nine banks for $910,500 of notes secured in this way. These banks were so situated as not to be able to take advantage at that time of the other method of issue for which the act made provision and under which all further issues were made. Banks not less than ten in number and having a capital and surplus of at least $5,000,000 in any city or geographical district, associated together in national currency associations formed for the purpose, were authorized to issue notes not only against approved bonds but also against commercial paper. A descriptive list of the securities taken was to be forwarded to Washington, but all the details of issue were handled by the officers of each association. This method of taking out additional currency closely resembled that with which bankers were already familiar in issuing clearing house loan certificates.

During the five years since the passage of the Aldrich-Vreeland act 21 associations with a membership of 325 banks had been formed. This number was increased to 44 with a membership of 2102 banks during August and September. Earlier associations had been mainly composed of city banks, although during the crisis the membership of many of them was extended to include nearby

country banks. Banks of the smaller cities and country banks organized the associations which were formed after the beginning of August. Circulation was taken out through 41 of the 44 associations by 1190 of the 2102 members. Credit is so fluid, however, provided the banking machinery of a country does not become dislocated, that the good effect of the notes was quite as widely diffused as if a larger number of banks had participated in issuing them.

Thanks to the emergency notes, the banks were able to maintain payments without difficulty, both over the counter and between themselves. All requirements for currency for use outside the banks were met with the new notes, thus safeguarding the reserves of the banks. The notes also were a positive means of increasing reserves. Gold, gold certificates, and other lawful money received by the banks over the counter in the ordinary course of business were retained, while counter payments were regularly made in the new notes, which proved in every way quite as acceptable, indeed, in one respect more so, since they were all new currency. By this means the banks in course of time were able to secure additional means for meeting such payments as could not be made with the notes.

For payments between banks, the notes were far more serviceable than loan certificates, because they could be used between banks in different places. They were also used in settlements between banks in the same place; consequently a smaller number of clearing houses resorted to the device of the loan certificate, and the amount issued was much less than in 1907. The notes, however, were not an altogether satisfactory substitute for the loan certificate within its own restricted field. To state banks and trust company clearing house members, the notes were not directly available. To banks having an unfavorable clearing balance, the notes were a more attractive medium of payment, because the tax of 3 per cent was less burdensome than the 6 per cent or more regularly paid on loan certificates. For the same reason, to banks with favorable balances, the loan certificate was, of course, a more acceptable medium of payment.

Thanks again to the emergency notes, and in striking contrast with experience in former crises, the banks were able to meet requirements for additional loans occasioned by the crisis, and at reasonable rates. During the first half of August bankers did, indeed, manifest some hesitation about extending credits. This

was in part due to uncertainty as to the effects of war on the ability of borrowers to meet their obligations at maturity. Moreover, the issue of emergency notes was an entirely novel device, and, until it was in full operation and its effectiveness had become manifest, there was naturally some disinclination to adopt a policy of liberal loan expansion. But this period of hesitation was short and was not marked by attempts at drastic loan contraction which in former crises have added enormously to the difficulties of the business community. Purchases of commercial paper from note brokers were much reduced, but the market was never completely suspended as in former crises. Many who customarily borrow in the open market resorted to their own banks for accommodation, in part, no doubt, from necessity, particularly in the case of less well-known firms, but often because at the high rates prevailing, it was advisable to borrow for shorter periods than is customary on paper placed by note brokers. At no time during the crisis was there any appreciable complaint of inability to secure accommodation from the banks. All legitimate business requirements for additional credit would seem to have been fully met by the banks.

Rates for loans advanced sharply at the end of July and continued at a high level throughout August and much of September, but at no time were the abnormally high rates quoted which have characterized former crises in this country. Rates for call loans, which, owing to the suspensions of dealings in securities, had become time loans without definite maturity, advanced to 8 per cent at the beginning of August. From 6 per cent to 8 per cent was charged during the entire period that the stock exchange remained closed. It was clearly desirable to hold rates for this class of loans at a level which would make it advantageous for borrowers to reduce or liquidate their obligations. Rates for collateral time loans ranged between 7 per cent and 8 per cent. While the stock exchange remained closed there was but a nominal difference between the time and the demand call loan. Commercial paper was obviously more liquid than other loans and on the whole was taken at somewhat lower rates. The highest rate quoted at any time for commercial paper of the best known borrowers seems to have been 7 per cent, and 6 per cent became the ruling rate early in September.

Statistical comparisons of the volume of loans in this and former crises are highly significant. No very marked difference is, indeed,

to be noticed in the case of the New York banks. Always in former crises outside banks have reduced loans in that market, compelling the New York banks to grant additional accommodation if a catastrophe was to be avoided. In 1907, for example, the loans and investments of the New York clearing house banks increased from $1,087,000,000 to $1,187,000,000 during the first three weeks of the crisis and changed very little during a number of weeks thereafter. In 1914 the loans and investments of the clearing house banks and trust companies increased from $2,073,000,000 to $2,127,000,000, between July 31 and August 14. During several weeks thereafter changes in the loan account were too slight to have any significance. Loan expansion on the part of the New York banks, it will be noted, was somewhat greater absolutely and very much greater relatively in 1907 than in 1914. Explanation is found in the very different course followed during the two crises by the banks generally throughout the country. Between August 12 and December 5, 1907, the loans and investments of all the national banks of the country increased by only $35,000,000, from $5,478,000,000 to $5,513,000,000. Between June 30 and September 12, 1914, there was an increase of $307,000,000, from $7,510,000,000 to $7,867,000,000. In 1907 the national banks of the country, excluding those of New York, contracted loans, while in 1914 the total loan increase was not only more considerable, but was also general throughout the entire country.

By the middle of September the initial effect of the crisis in creating a need for additional loans seems to have fully worked itself out. The return of the condition of the national banks on October 31 shows practically no change in the loans and investments of the national banks, which then stood at $7,865,000,000, but on the date of the next return, December 31, there was a reduction of $70,000,000, to $7,695,000,000. By that time the effect of liquidation and less active business was naturally becoming manifest in a smaller volume of bank loans.

Owing to the circumstance that this was the first crisis in the United States in which the situation was handled in the only proper fashion, by means of loan expansion, these figures have particular significance. The loan increase, if the returns of the national banks may be taken as a basis for judgment, was in the neighborhood of 4 per cent of the previous volume of loans. During a period of something like six weeks there was a demand for addi-

tional accommodation on the part of the business community. Then followed a period of about the same length during which loans were at a stationary level. At the end of about three months it would appear that business had become adjusted to the new conditions which had been occasioned by the crisis, and thereafter loans showed a declining tendency, and the period of pressure upon the banks was at an end. Whether there will be need for a similar increase in loans and whether the duration of the period during which the increase is taking place will be similar in future crises, can not of course be determined with certainty. There is some ground for thinking that liquidation may begin somewhat earlier and be carried through somewhat more rapidly in the case of a crisis due to unsound conditions within the country. It may, also, be presumed that in such cases some part of the burden of supporting the situation can be shifted to foreign lenders. The opinion may therefore be hazarded that the percentage of loan expansion to the existing volume of loans furnishes a rough indication, at any rate, of the additional credit which may be required in future crises under the operation of the federal reserve banking system.

All requirements for additional currency during the crisis were fully met, but it is not possible to determine statistically the exact extent of these requirements. During August $208,000,000 was issued to the banks under the provisions of the Aldrich-Vreeland act. By the end of September $326,000,000 had been issued, and at the end of October, $369,000,000. Banks began to retire notes during the last days of October, when the total was reduced by $8,000,000. Thereafter retirement was rapid, the total outstanding being reduced to $205,000,000 on November 27, to $150,000,000 by the end of December, and to about $60,000,000 at the end of January. For the amount of these notes actually in circulation, data are available only on the dates of the returns of condition of the national banks to the Comptroller of the Currency. Between June 30 and September 12 the total amount of notes in circulation increased by $196,000,000, from $722,000,000 to $918,000,000. Of these notes the amount issued against United States bonds on these dates and also on the dates of the two subsequent returns was between $735,000,000 and $740,000,000. The return on October 31 showed a further increase of $100,000,000, while that of December 31 indicated a decline of $170,000,000. On October 31, at the time when there was the largest amount of Aldrich-Vreeland

notes in circulation, namely $279,000,000,[5] the amount of circulation actually taken out by banks was $362,000,000.

It is to be noted that the duration of the period of loan expansion and that of increasing issues of currency were not the same. Loan expansion seems to have culminated by the middle of September, while the volume of emergency currency increased until nearly the end of October. Presumably, if the requirements for additional currency for use outside the banks had been the only cause of issue, there would have been a closer approach to uniformity in the two periods. But other causes were at work. In the first place, all of the notes which were in circulation in the sense of being a liability of the banks were not in actual circulation. Since bank notes had become the larger part of the total circulating medium, banks received more of them over the counter in the ordinary course of business. Thus, on October 31, the banks held $87,000,000 in each other's notes, contrasting with only $43,000,000 on June 30, and $73,000,000 on September 12. The substitution of the emergency notes for gold and other reserve money in circulation also accounts for some part of the increase in circulation, especially during the period between September 12 and October 31. Between these dates the reserves of the national banks increased $22,000,000, from $904,000,000 to $926,000,000, although the total amount of money in the country, not including that in the United States Treasury, was practically stationary, having been $2,626,000,000 at the beginning of September and $2,632,000,000 at the beginning of November. When allowance is also made for the similar tendency to accumulate reserve money by state banks and trust companies, it will be seen that the increase in emergency bank notes during September and October is very largely, if not entirely, accounted for by other factors than an increase in the use of money outside the banks.

It would seem, then, that additional requirements for currency occasioned by the crisis were somewhat less than $300,000,000, although, as we have seen, the maximum amount of notes taken out was $362,000,000. It would also appear that the demand for additional currency, so far as the general public was concerned,

[5] The volume of notes in circulation never quite equals the par value of the United States bonds deposited as security. On the basis of returns when only such notes have been issued, it may be estimated that $20,000,000 were in the possession of issuing banks and that therefore there were about $300,000,000 of emergency notes in circulation on October 31.

reached the point of greatest intensity in September, when, as we have seen, loans also were at their highest level. Bearing in mind the qualifications mentioned in analyzing the movement of loans, it would seem reasonable to conclude that the federal reserve banks will be obliged to furnish some $300,000,000 of additional currency in future crises. It is essential also that the ability of the reserve banks to furnish a much greater amount of currency shall be as certain and obvious as in 1914, when the banks were operating under the terms of the Aldrich-Vreeland act.

If the crisis of 1914, like all former crises in the United States, had been directly due to unsound business conditions within the country, additional currency and credit would have met all the difficulties of the situation, in so far as they are susceptible of removal or relief through the banks. Thanks to the maintenance of cash payments and a liberal loan policy, the crisis did not degenerate into a panic, and opportunity was given for gradual adjustment and liquidation, involving a minimum of loss. But the crisis was primarily due to foreign causes, and consequently the difficulties with which the banks were confronted were not limited to the prevention of panic and the provision of means which would permit the adjustment of domestic business to the new situation with the least possible loss and strain. The complete disorganization of the foreign exchanges and the conditions which had made necessary the suspension of dealings in securities and the closing of the cotton exchanges were matters which required something more than liberal credits and issues of emergency notes. The collapse of the domestic banking machinery would indeed have deferred arrangements designed to meet these special difficulties. Clearly, also, the prevention of panic and the adjustment of domestic business to the situation were matters of primary importance. In restoring the foreign exchanges the banks could properly use only such funds as were available after meeting these domestic requirements. But, as we have already seen, by means of the issue of emergency notes, the banks were able not only to meet all purely domestic requirements, but also to strengthen their reserves through the substitution of the notes for lawful money previously in use outside the banks. The cash reserves of the banks, therefore, to whatever extent they were prepared to make use of them, were available for the purpose of bringing back foreign exchanges to a normal state.

On the last day of July, it will be recalled, the cotton and stock

exchanges were closed for an indefinite period. London, for a number of days, had ceased to perform its regular foreign exchange functions of accepting and discounting bills of exchange. Notwithstanding withdrawals of something more than $40,000,000 of gold for export, there was a large outstanding indebtedness against New York, immediate payment of which was demanded by London. The foreign exchange market in New York had completely broken down, such rates as were quoted representing merely particular transactions. During the first two weeks of August it was physically impossible to restore normal exchange conditions. Gold could not be shipped because insurance could not be procured at any price, and on account of the almost complete lack of shipping facilities. For the time being, everything was subordinated to the immediate necessity of extricating the thousands of American tourists stranded in various parts of Europe. Bankers exerted themselves strenuously to induce their foreign correspondents to continue payments on travellers' checks and letters of credit, and with a good measure of success after the first few days of August. Many tourists, however, were wholly without funds, either because they had not been intending to return to the United States at this time, or because sailings of the boats on which they had engaged passage were discontinued. To meet this situation, Congress appropriated $2,750,000, which, with funds provided by bankers, was taken to Europe on the cruiser Tennessee. From the government funds advances were made to all Americans who seemed in positive need of assistance, and by the end of September practically all American tourists who desired to return were brought back to the country.

During the month of August certain parts of the complicated mechanism of the exchanges were repaired, but other parts quite as essential for normal operation were still out of commission. In London, with commendable celerity, measures were taken to make possible the resumption of the accepting and discounting of bills. Saturday, August 1, and Monday, August 3, were regular bank holidays in London. These were followed by three special bank holidays, and on August 6 a special and on August 13 a general moratorium were established. The moratorium gave the needed time for devising and putting into operation positive remedies.

Detailed consideration of the nature and effects of the moratoria in Great Britain and elsewhere does not come with the scope of

this article, because they had no direct bearing upon the exchange situation between the United States and other countries. If the United States had been a creditor nation in the international short-time loan market, holding large numbers of bills drawn on other countries, the moratoria would have been a factor of primary importance. But as has already been seen, bills going forward during July had been regularly discounted and sight exchange had at once been sold against the proceeds. No appreciable amount of American money was tied up and payment of no appreciable amount of indebtedness was deferred on account of the moratoria either in Great Britain or in other countries. Moratoria in other countries weakened London, because other countries were generally indebted to it, but the English moratorium was designed to protect the London market, owing to the inability of the different financial institutions there to meet their obligations to each other. The British moratorium freed the London accepting houses from immediate bankruptcy, but did nothing to relieve them from responsibility after its expiration. If British trade was to continue, to say nothing of resuming London's function as the world's financial center, it was necessary to make arrangements which would permit accepting houses to take on new bills and also to restore the value of such acceptances. It was also necessary to safeguard the banks and bill brokers, which were the principal holders of the ante-moratorium bills. On August 13 it was announced that the Bank of England, guaranteed against loss by the government, would discount all pre-moratorium bills without recourse to holders, thus affording full relief to the banks and bill brokers. A little later, on September 4, on behalf of the accepting houses, it was announced that the Bank of England would advance money to enable acceptors to take up their bills for a period continuing for one year after the end of the war at 2 per cent above the bank rate of discount.[6] Whatever responsibility for payment still rests upon the accepting houses was deferred to a time when it may be presumed most of those for whom bills have been accepted will be able to meet their obligations. In any event, whatever may happen to the accepting houses one year after the close of the war, the value of the acceptance on current bills was restored, since they will mature well within that still indefinite date.

An immediate consequence of the arrangement which was adopted

[6] For a detailed account of these measures, see Hartley Withers, *The War and Lombard Street.*

as a means of relief for the London banks was to create a condition of extreme monetary ease in London. In order to escape possible loss or delay in the payment of pre-moratorium bills, it was only necessary for the banks to rediscount them at the Bank of England. In ordinary times banks and bill brokers rediscount at the Bank only in order to secure additional funds. Now bills in enormous quantities were taken to the Bank merely to escape danger of loss or delay in payment at maturity. During the three weeks ending with August 13 there had been a large amount of borrowing at the Bank, owing to the crisis. Loans (other securities) increased from £27,000,000 to £70,000,000 during that time, but, during the following three weeks to September 2, there was a further increase of £51,000,000 to £121,000,000. Practically all of this latter increase seems to have been due to the desire of the banks to relieve themselves of the danger of loss or delay in payment on pre-moratorium bills.

The proceeds of these discounts swelled the deposit balances of the other banks at the Bank of England. Since these balances are the reserves upon which the other banks build up their own deposit obligations, it obviously placed them in position to extend new credits to a far greater amount. Throughout August, however, the London banks would seem to have followed an extremely conservative, if not timid, policy. It was not until September that the effect of the enormous rediscounts at the Bank of England became manifest in a more liberal loan policy and in the rapid easing of rates. At first also the banks were unwilling to handle the accustomed variety of bills, discriminating not only against finance bills, but also against commercial bills drawn in connection with trade between foreign countries. Gradually, however, restrictions were removed, and in the course of the month of October it would seem that every variety of bill was being handled as usual in the London market, although of course unusual caution was exercised on account of the various new elements of uncertainty resulting from the war.

Resumption of the business of accepting and discounting bills by London was a necessary condition for the restoration of normal dealings in exchange. But something more was also required. London insisted upon the immediate payment of all the obligations which had been created by the sale of securities on foreign account in New York during the week before the closing of the stock exchange. The impossibility of making payment in gold

during the first part of August was recognized, but after the establishment on August 12 by the Bank of England of a depository in Ottawa for the receipt of gold, London bankers insisted that there should be no further delay.

In New York by the middle of August the foreign exchange market had reached a condition of relative calm, rates for demand exchange had settled to the neighborhood of $5 for the pound sterling. At this rate there was a considerable profit in shipping gold to Ottawa, since, on the basis of the price which the Bank of England was prepared to pay for gold shipped to Canada, the gold export point was at about $4.91. No gold was exported, however, because no gold was available. The banks of the country had suspended gold payments, making payments only in currency. The banks exhibited no more readiness to allow their reserves to be used in meeting foreign payments than on former occasions when the withdrawals were for domestic purposes. From the beginning of August to the end of October gold payments were restricted. The course of our banks during former crises strongly suggests that the unwillingness of the banks to supply the gold necessary to restore the foreign exchanges to a normal level was not because gold, rather than other reserve money, would have been withdrawn. Whenever reserves have dropped very much below legal requirements, our banks have always restricted payments if further withdrawals were threatened on a large scale. In the past the demand had come largely from the west and south. On this occasion it happened to be for the purpose of meeting foreign payments.

We have here simply another instance of the uselessness, under the system since fortunately changed, of the reserves of our banks when an occasion for their use presents itself. No one bank or small number of banks could have continued gold payments while other banks were following the policy of restriction. But while inability to maintain payments may be attributed to a faulty banking system, it has also to be admitted that there was a regrettable willingness on the part of the financial community to adopt restrictive measures. The absurd policy of hoarding reserves was generally regarded as wise and proper; and reasons, which at best were but lame apologies for the course taken, were generally held to be the expression of profound financial wisdom. The European moratoria, the probability that merchandise exports would provide means of payment in the course of time, and uncertainty whether gold would be sent to the United States in case the balance of

payments should swing in favor of this country during the course of the war, were all offered as reasons for postponing the payment of obligations which were already past due.

Had the federal reserve banks been in full operation for a number of years, it is to be presumed that gold would have been furnished to satisfy all foreign requirements. Surely it is to be hoped that in the administration of the reserve banks, recourse to the weak and ineffective policy of restrictions upon cash payments will never be given a moment's serious consideration. It is probably fortunate, however, that the new banks did not begin business, as was originally expected, in June or July. While they might have been helpful, it is unlikely that they would have been able at the moment of beginning active business to maintain the normal course of banking operations. Partial failure to do so might have lessened confidence in the new system, and such confidence, it need hardly be said, is absolutely indispensable if the system is to perform the functions for which it has been designed. The fact that it was not in operation at this time of crisis, sometimes declared unfortunate, was in reality a piece of good fortune.

How much gold would have been taken for export if payments had been maintained can not be determined. Estimates of the amount of indebtedness which were due offer no indication of the amount of gold which would have been required. Nearly all of the gold which might have been exported would have gone to London, and by creating easier conditions in that market, the possibility of securing new loans to take the place of maturing obligations would have been enhanced. Moreover, foreign short-time loans to this market would doubtless have become more attractive if we had shown a determination to continue cash payments even in the midst of universal financial commotion.

Owing to the failure to adopt the simple and direct method of meeting foreign obligations as they matured, the foreign exchange market continued in a disorganized state until the end of October. During August the volume of matured indebtedness seems to have increased, since at the outset the war occasioned a far more considerable decline in exports than in imports. The amount of foreign indebtedness would have still further increased in September, if settlements had been limited to the amount of exchange created by trade movements. About $80,000,000 out of a total of $100,000,000 of short-term notes of the city of New York, maturing at various dates between September and January, were held in Eng-

land and France. To maintain the credit of the city it was imperative not only that the city secure new loans, but also that payment be made to foreign holders of these notes. By means of a syndicate, in which all but four of the 130 banks and trust companies of New York participated, the necessary arrangements were made. The members of the syndicate agreed to supply gold or exchange as called upon by the syndicate managers, but in so far as exchange could be secured by the managers payment was to be made in checks. Under this arrangement, means for making payments abroad, which would otherwise have been unavailable, were secured but only to the extent that subscribers were called upon to furnish gold. Exchange secured by the syndicate managers or furnished by the banks themselves lessened the amount of exchange available for other purposes. Between September 16 and November 6 subscribers to the syndicate provided $52,000,000, of which $17,000,000 was in checks or in exchange and $35,000,000 was in gold. No gold was required in connection with the remaining $28,000,000, since after the middle of November the syndicate managers found no difficulty in procuring exchange.

During September another arrangement for supplying gold for export was completed. On September 4 the Federal Reserve Board had called a conference of representatives of the clearing house banks of all reserve cities. A committee of bankers appointed at this conference prepared a plan which was adopted for the formation of a gold pool of $100,000,000. Contributions to the pool were requested in proportion to the gold holdings of the banks of the various reserve cities. Banks everywhere readily assented to this arrangement, and on September 30 the managers of the pool called upon subscribers for 25 per cent of their subscriptions. At once $10,000,000 was shipped to the depository of the Bank of England at Ottawa, and against this sum exchange was sold from day to day. No attempt was made to provide a sufficient amount of exchange to bring rates down to the normal export point. The purpose of the managers of the pool seems to have been to use the funds at their disposal to steady rates in the neighborhood of $4.96 for demand sterling.

During the last week of October, foreign exchange rates suddenly and unexpectedly declined sharply to the gold export point of $4.90, and after the middle of November went definitely below the gold export point. The decline did not stop at this stage, however, and by the end of the year rates were being quoted at

which in normal times gold imports would have taken place. It does not fall within the scope of this paper to analyze the transformation in the exchange situation which came during the first half of 1915, when an enormous foreign indebtedness in favor of the United States was incurred through the demand for various American products occasioned by the war. It is, however, now evident that the same influences which created this indebtedness caused the sudden drop in exchange last October and November. The New York City pool and the gold pool steadied the exchange market during the latter part of September and early in October, and, by the evidence which they gave of the purpose of American bankers to meet all obligations, doubtless facilitated the creation of exchange through borrowing in London at that time. But the principal cause of the decline in exchange was the expansion of exports. The extent of this influence during any one month was not fully indicated in the trade figures for that month, because much of the business with the countries at war is based upon orders which require months before completion and shipment. Payment in advance, and even certainty of payment at a future date, provided the basis for immediate dealings in exchange.

When dealings in securities were suspended it was everywhere recognized that they could not be resumed without restrictions until normal conditions had been restored in the foreign exchange market. From the middle of November, however, and to an increasing extent week by week, sales of securities on foreign account could evidently be absorbed without involving gold exports. Moreover, the condition of artificial monetary ease in all European countries, resulting from the expansion of credit by the various European central banks, removed, at least for the time being, much of the inducement on the part of foreign holders to dispose of American securities. The full effect of these influences could not, however, be exactly determined, and therefore to resume dealings in securities without restrictions would have involved the assumption of risks which would have served no useful purpose. Further, owing to the long discontinuance of dealings, it was at least possible that many American holders of securities were awaiting the opportunity to convert their holdings into cash, and, finally, there was no certainty of a general readiness on the part of the investing public to absorb securities at the level of prices of July 30, when the stock exchange was closed.

Dealings in securities were therefore wisely resumed by a suc-

cession of steps. During August and September sales of securities, where a clear case of necessity was made out, were permitted at prices not below those of July 30 through stock exchange committees or, in the case of unlisted securities, committees representing dealers in such issues. In the latter part of September dealings in listed bonds and notes and in unlisted bonds and shares were authorized at some concessions from the prices of July 30, but still under supervision. During October listed guaranteed stocks might be dealt in in this way, and all restrictions were removed from dealings in unlisted securities selling at less than $10 a share. These were, of course, securities not largely held abroad. During November all restrictions on dealings in unlisted securities were removed and also those upon listed guaranteed stocks and on listed bonds and notes maturing before 1917. Finally, on November 28, the stock exchange was opened for public dealings in listed bonds for cash only and at minimum prices which could be changed from time to time by the stock exchange committee. On December 12 the exchange was opened for dealings in stocks on similar terms, with the exception of a certain number of securities, chiefly of an international character. Dealings in this class of securities were allowed on December 15. During the following weeks the minimum prices for various securities, in which there had been no dealings at the original prices, were reduced from time to time, but on the whole the general level of quotations was not far from that at the time the exchange was closed. In January the restrictions limiting sales to those for cash only were removed, thus making it more feasible for foreign holders to dispose of securities in the New York market. Finally, after a pronounced advance in the general range of quotations, on April 1 all restrictions upon dealings were removed.

At the beginning of November, although it was not then clearly evident, the crisis in the United States, with the exception of the cotton-growing southern states, was a thing of the past. Normal marketing conditions were indeed restored with the reopening of the cotton exchange on November 16. Business began with quotations in the neighborhood of 7.50 cents a pound, contrasting with 10.50 cents at the time the exchange closed at the end of July. Cotton was then being sold in the South at from five to six cents a pound, and, with a record crop of 16,000,000 bales, an advance in the price of the staple seemed altogether improbable. The resources of southern planters, merchants, and banks were clearly wholly inadequate to carry any considerable part of the crop over to an-

other year. To meet this situation, banks of northern cities, acting in close association with the Federal Reserve Board, subscribed a fund of $100,000,000, the southern banks agreeing to participate on a somewhat different and less advantageous footing for $35,000,000. From these funds, loans maturing in February, 1916, were to be made on cotton as security taken at six cents a pound. Subscriptions to this arrangement were not entirely secured until the very close of the year. This cotton pool would have proved the means of affording necessary relief for the South but for an unexpected increase in the demand for cotton. Doubtless the existence of the pool did much more to improve sentiment during November and December, though there was no marked change in the price of cotton during those months. Beginning with January there was a marked increase in the foreign demand—week by week exports approaching or exceeding those in previous years. Cotton prices advanced sharply and were in the neighborhood of nine cents a pound at the end of January, and nearly ten cents a pound at the end of February. In these circumstances there was no occasion to make use of the resources of the cotton pool. On February 1, the last day for receiving applications, requests for only $28,000 in loans has been received. These loans were transferred to a bank, and the Cotton Loan Association's activities were ended.

The crisis of 1914 was so special in its character that it affords a somewhat uncertain basis for conclusions of general validity. That our banking system was ineffective in an emergency received further proof. The Aldrich-Vreeland notes provided an adequate means of meeting purely domestic requirements, but quite as clearly the course of the crisis indicated that something more was needed to enable the banks to cope with a crisis in which financial relations with foreign markets are disturbed. In no former crisis was the aid rendered by the government so immediate and effective. The Federal Reserve Board also took an active part in securing concerted action among the banks. These are most promising indications of the service which may be expected from the federal reserve banking system in future emergencies.

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